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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,422	02/05/2007	Hirokazu So	0074/071001	9486
7590 Randolph A. Smith Smith Patent Office 1901 Pennsylvania Ave., N.W. Suite 901 Washington, DC 20006-3433			EXAMINER BERNARD, DANIEL J	
			ART UNIT 2189	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/576,422

**Applicant(s)**

SO ET AL.

**Examiner**

Daniel J. Bernard

**Art Unit**

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 11, 12 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 11, 12 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

#### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 November 2009 has been entered.

#### ***Status of the Claims***

2. Claims 1, 11, 12, and 14 are pending. Claims 2-10, 13, and 15-20 have been canceled.

#### ***Response to Arguments***

3. Applicant's arguments with respect to the remaining claims have been fully considered, but they are not persuasive.

Applicant contends, on page 10 of the remarks, "By this amendment, independent claim 1 has been amended to recite 'update information in said update notification part is updated only immediately before data of said recording area is first updated after initialization processing of said recording medium conducted at the time when the recording medium is inserted into said data processing apparatus.' The amendment to claim 1 clarifies the initialization processing which is performed every time when the recording medium is inserted into the processing apparatus in the present invention." The examiner respectfully

submits that further clarification may be needed. Specifically, support for this part of the amended Claim 1 may be found in Applicant's specification on page 8, lines 4-14, and on page 31, lines 9-15. These descriptions appear to indicate that a recording medium must be inserted into a data processing apparatus for an update, such as a read or a write, to occur on the recording medium. The examiner acknowledges that "the initialization processing" would comprise such read or write activity. However, the examiner maintains that it also would have been obvious to one of ordinary skill in the art that if such processing is to occur on a recording medium without autonomous processing capability and a power supply built in, then the recording medium would necessarily be interfaced with a data processing apparatus, such as by insertion into a slot on the apparatus, as is widely known in the art. Additionally, the examiner further submits that this claimed element is also specifically disclosed in the cited prior art of record, for example, in the Shibazaki reference (Shibazaki et al., US Pub. No. 2001/0014933), paragraphs [0062]-[0065], a recording medium, such as a memory card, is inserted into a slot in a data processing apparatus, such as a personal computer, whereby the recording medium may be accessed, including both read and write functionality are disclosed, which further comprises performing initialization processing, according to paragraphs [0071]-[0076]. Therefore, for the reasons herein and previously presented, the examiner respectfully submits that the record establishes a *prima facie* case

that the combined teachings of the art of record would have suggested the claimed subject matter to those of ordinary skill in the art.

Applicant further contends, on pages 11-16 of the remarks, that Komori et al., Yoshino et al., and Shibazaki et al. each "do not disclose that update information in said update notification part is update only immediately before data of said recording area is first updated after initialization processing of said recording medium conducted at the time when the recording medium is inserted into the data processing apparatus" in Claim 1. While each reference individually may not explicitly disclose all of the aforementioned limitations of these independent claims, the examiner respectfully submits that the combined teachings of the art of record would suggest these claimed limitations to one of ordinary skill in the art, as detailed above and as is now detailed in the new grounds of rejection necessitated by Applicant's amendment.

#### ***Claim Objections***

4. Claim 1 is objected to for the following informality: "conducted at the time" should be --conducted at a time--. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a

person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
7. Claims 1, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US Pat. No. 6,046,937, hereinafter Komori) in view of Yoshino et al. (US Pub. No. 2002/0083282, hereinafter Yoshino) and Shibazaki et al. (US Pub. No. 2001/0014933, hereinafter Shibazaki).

Regarding Claim 1, Komori teaches a recording medium comprising a nonvolatile recording area for storing data (col. 4, lines 41-66), an update notification part for updating update information of the time of writing or erasing of data to the recording area and holding the update information, a host interface part for communicating with a data processing apparatus (col. 4, lines 16-30 and 41-66), a controller for reading and writing data from and to the recording area and supplying the data in the recording area and the update information to the data processing apparatus via the host interface part, wherein update information in the update notification part can be read from the data processing apparatus and cannot be written by the data processing apparatus (from col. 4, line 63 to col. 5, line 3; col. 7, lines 28-38 and 46-53; Fig. 1, item 16). It is noted that Komori may not specifically teach, but Yoshino suggests, that the update information in said update notification part is updated only immediately before data of said recording area is first updated after initialization processing of the recording medium (§ [0283] lines 1-10; § [0284] lines 1-7: the update notification, as previously taught by Komori, in such a manner as to take place after initialization of the medium and before recording, thereby takes place immediately before the first update). Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Komori and Yoshino, because, as Yoshino further suggests (§ [290]), such an arrangement could make more efficient use of recording media. It is noted that Komori and Yoshino may not explicitly disclose, but

Shibazaki suggests, that the update information in said update notification part is updated only immediately before data of said recording area is first updated after initialization processing of said recording medium is conducted at a time when the recording medium is inserted into the data processing apparatus (¶ [0062]: inserting a recording medium into a slot on a data processing apparatus and accessing the recording medium; ¶ [0064] and ¶ [0065]: read and write; ¶¶ [0071]-[0076]: initialization processing of inserted medium). Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Komori, Yoshino, and Shibazaki, so as to take advantage of the flexibility of removable nonvolatile memory storage, as is commonly known in the art in the case of such processing that is to occur on a recording medium without autonomous processing capability and a power supply built in, then the recording medium would necessarily be interfaced with a data processing apparatus, such as by insertion into a slot on the apparatus..

Regarding Claim 11, Komori teaches that the recording area includes a data storage area which stores one or more pieces of data (col. 3, lines 25-44; col. 4, line 61 through col. 5, line 3). It is noted that Komori does not specifically teach a search information storage area which stores search information required when the data processing apparatus takes out each data stored in the data storage area, and at least one of the data storage areas has a field for storing update information in the update notification part. However, Yoshino suggests a



search information storage area which stores search information required when the data processing apparatus takes out each data stored in the data storage area, and at least one of the data storage areas has a field for storing update information in the update notification part (§ [0030] lines 1-12; § [0264] lines 1-10; § [0265] lines 1-11). Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Komori and Yoshino, so as to optimize the management of relevant information associated with data for processing.

Regarding Claim 12, Komori teaches that the recording area includes a data storage area which stores one or more pieces of data (col. 3, lines 25-44; col. 4, line 61 through col. 5, line 3). It is noted that Komori does not specifically teach search information storage area which stores search information required when the data processing apparatus takes out each data stored in the data storage area, and the search information storage area has the field for storing update information in the update notification part immediately after the data is updated. However, Yoshino suggests search information storage area which stores search information required when the data processing apparatus takes out each data stored in the data storage area, and the search information storage area has the field for storing update information in the update notification part immediately after the data is updated (§ [0030] lines 1-12; § [0264] lines 1-10; § [0265] lines 1-11). Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings

of Komori and Yoshino, so as to optimize the management of relevant information associated with data for processing.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komori et al. (US Pat. No. 6,046,937, hereinafter Komori) in view of Shibazaki et al. (US Pub. No. 2001/0014933, hereinafter Shibazaki) and Yoshino.

Regarding Claim 14, Komori teaches a data processing method, wherein a recording medium includes: a nonvolatile recording area for storing data (col. 4, 41-66), an update notification part for holding update information of data(col. 4, lines 16-30 and 41-66), and a controller for reading and writing data from and to the recording area and supplying the data in the recording area and the update information to a data processing apparatus (col. 4, lines 16-30 and 41-66; col. 7, lines 14-38 and 46-53), and the data processing apparatus includes a data processor for reading data of the recording medium and temporarily storing the data and performing a data processing on the basis of update information read from the recording medium in the update notification part, comprising the steps of making it possible for update information in the update notification part to be read from the data processing apparatus and impossible for update information to be written by the data processing apparatus, and updating the update information by the controller at the time of writing or erasing of data to the recording area (col. 4, lines 16-30 and 41-66; col. 4, line 63 through col. 5, line 3; col. 7,

lines 14-38 and 46-53), and determining whether or not data of the recording area in the recording medium has been updated by reading update information in the update notification part of the recording medium (col. 7, lines 14-38 and 46-53; col. 8, lines 12-45). It is noted that Komori does not specifically teach a slot to which the recording medium is attached. However, Shibazaki suggests a slot to which a recording medium is attached (¶ [0062] lines 1-9). Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Komori and Shibazaki, so as to take advantage of the flexibility of removable nonvolatile memory storage. It is noted that Komori and Shibazaki may not specifically disclose, but Yoshino suggests, determining whether or not data of said recording area in the recording medium has been updated after said data was recorded by determining whether or not update information of field in the recording area read from said recording medium corresponds to update information in said update notification part read from said recording medium (¶ [0245]; ¶ [0474] lines 1-9; ¶ [0475] lines 1-6). Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Komori, Shibazaki, and Yoshino, because, as Yoshino further suggests (¶ [0244]; ¶ [0260]), such arrangements could provide for more reliable use of recording media.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Radko et al. (US Pat. No. 5,675,833) and Shih et al. (US Pat. No. 6,405,362 B1) further disclose features which may be relevant to elements of the invention claimed herein.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Bernard, whose telephone number is 571-270-7840. The examiner can normally be reached on Monday through Thursday, 9:00 AM - 7:00 PM, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald G. Bragdon can be reached on 571-272-4204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. J. B./  
Examiner, Art Unit 2189

/Reginald G. Bragdon/  
Supervisory Patent Examiner, Art Unit 2189